CLAIMS

1. A method for re-targeting a design, said method comprising the steps of:

receiving a first low-level design representation targeting a first integrated circuit;

transforming said first low-level design representation into a synthesizable; editable, and simulatable high-level design representation; and

processing said high-level design representation to generate a second low-level design representation targeting a second integrated circuit.

- 2. The method of claim 1 wherein one of said first and said second integrated circuits is complex programmable logic device.
- 3. The method of claim 1 wherein one of said first and said second integrated circuits is field programmable gate array.
- 4. The method of claim 1 wherein one of said first and said second integrated circuits is gate array.
- 5. The method of claim 1 wherein one of said first and said second integrated circuits is ASIC.
- 6. The method of claim 1 wherein said high-level design representation comprises VHDL code.
- 7. The method of claim 1 wherein said high-level design representation comprises ABEL code.

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8. The method of claim 1 wherein said high-level design representation comprises Verilog code.

- 9. The method of claim 1 wherein said low-level design representation comprises boolean equations.
- 10. The method of claim 1 wherein said transforming steps comprises the steps of:

parsing said first low-level design representation; identifying equations in said first low-level design representation that give rise to synthesizable and simulatable objects; and

writing said high-level design representation that contains said synthesizable and simulatable objects.

- 11. The method of claim 10 wherein said objects include flip flops.
- 12. The method of claim 10 wherein said objects include input, output and inout.
- 13. The method of claim 10 wherein said objects include tristate and open drain outputs.
- 14. The method of claim 10 wherein one of said first and said second integrated circuits is complex programmable logic device.
- 15. The method of claim 10 wherein one of said first and said second integrated circuits is field programmable gate array.
- 16. The method of claim 10 wherein one of said first and said second integrated circuits is gate array.

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17. The method of claim 10 wherein one of said first and said second integrated circuits is ASIC.

- 18. The method of claim 10 wherein said high-level design representation comprises VHDL code.
- 19. The method of claim 10 wherein said high-level design representation comprises ABEL code.
- 20. The method of claim 10 wherein said high-level design representation comprises Verilog code.
- 21. The method of claim 10 wherein said low-level design representation comprises boolean equations.